

Sleep Deprived EEG (Electroencephalogram)



Neurophysiology Department

This leaflet aims to provide information for patients attending the Royal Surrey County Hospital for a sleep deprived EEG test. It describes what happens before, during and after the test, together with an explanation of any risks.

What is a Sleep Deprived EEG?

A sleep deprived EEG is a diagnostic test, with the aim of recording your brain waves while you are asleep or drowsy. If you receive an appointment for a sleep deprived EEG you will have probably already had a routine EEG. The test will be carried out in a similar manner.

A video recording will be taken at the same time as the EEG. This is done so that any movements and/or behaviour noted during the recording can be linked to the brain activity seen on the computer. For more information, please refer to the attached video consent form.

Why am I having this test?

You have been referred for a sleep deprived EEG to aid your doctor in reaching a diagnosis. Useful information can show up during drowsiness or if you fall asleep during the recording.

What should I do before the test?

Depending on your age, you will need to stay awake for all or some of the night.

Below 70 years	You will need to stay awake all night. Your appointment will be at 9.00am.
70 years and above	You should reduce your amount of sleep staying up 2 hours past your usual bedtime and waking 2 hours earlier than normal. After your usual morning's activity you will be asked to attend for the EEG in the afternoon.

If you think you will be unable to manage this, please telephone the department to discuss alternative options, at your earliest convenience. Any adjustments may mean we need to alter the time of your appointment.

In addition:

Please do not drink caffeine-containing drinks or alcohol after midnight.

- Please do not use hair gels, lacquer etc, and ensure your hair is clean when you come for the test.
- Take your medication as normal unless otherwise directed by your doctor. It would be helpful if you would bring a list of any medication you are taking.
- Eat as normal.

What does the test involve?

As with the routine EEG, the test will be carried out by a Clinical Physiologist who will explain the procedure and take some details of your medical history. These details will be passed on to the Neurophysiologist (specialist doctor) who interprets and reports on the EEG after you have left the department.

The electrodes will be applied to your head as before. You will then be asked to lie down and close your eyes to encourage sleep. The room will be darkened and you will be kept warm by a sheet or blanket.

Does it hurt?

EEG is a painless procedure.

How long will the test last?

Your appointment will last approximately 1½ hours in total with the EEG recording itself taking approximately 40 minutes. The recording may be extended, depending upon how sleepy you are.

What else may be involved?

As with the routine EEG you may be asked to perform the activation procedures, overbreathing and/or photic stimulation. Both these procedures are very useful for obtaining further information that does not show up when you are simply resting. You may choose not to have these tests carried out, in which case the rest of the EEG will be carried out as normal. Please tell the physiologist if you have asthma, have had a recent stroke, have any heart problems or if you are pregnant.

Are there any side effects and risks?

Sleep deprivation is an activation procedure and all activation procedures carry a small risk of producing a fit in people who are prone to fits. If this were to happen, it could affect your entitlement to drive as the DVLA may ban you from driving for 1 year. It is important to remember that these activation procedures are far more likely to aid the doctor in reaching a diagnosis.

There is also an element of danger to yourself and the public from driving when sleep deprived so we **strongly advise** that you do not drive before or immediately after the test. Please arrange a lift to and from the hospital or use public transport. Ideally you should be accompanied.

Are there any alternatives?

EEG is a diagnostic test and there is no alternative. If you would prefer not to have the test done you would need to discuss your options with your referring doctor.

What happens after the test and how do I get my results?

After the electrodes have been removed from your scalp, you will then be free to go home. You may still feel sleepy so you should plan to have a restful day following the test.

You will **not** get the results of the test on the same day. The EEG will be analysed by the Clinical Physiologist, and reported by the Consultant Neurophysiologist. The EEG report will then be sent to the doctor or consultant who referred you for the test. They should have this within 2 weeks.

Further information about EEG testing is available from many organisations including:

UK Epilepsy Helpline (Freephone) 0808 800 5050

Website: www.epilepsy.org.uk

Email: helpline@epilepsy.org.uk

Txt msg: 07537 410044

Twitter: [@epilepsyadvice](https://twitter.com/epilepsyadvice)

Reference sources

1 Cooper R, Binnie C, Billings R (2005)

Techniques in Clinical Neurophysiology. A Practical Manual

Elsevier

2 Glick TH (2002)

The Sleep-deprived Electroencephalogram: evidence and practice.

Arch.Neuro1. 2002;59(8):1235

Leaflet compiled by the Neurophysiology Department, The Royal Surrey County Hospital.

Contact details

If you have any further questions, please contact the Neurophysiology department on:

01483 464128

PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–4.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

Past review date: August 2016

Future review date: August 2019

Author: Sarah Bettini

PIN160805–1123

